

Remarks

This application has been carefully reconsidered in view of the Office Action of January 31, 2000. In this response, amendments to the claims have been made in order to more specifically define Applicants' invention and to cure the insufficiencies under 35 U.S.C. § 112 as noted by the Examiner. The objection to the drawing is noted. It is realized that the drawings are informal. However, with respect to Fig. 4, Applicants are uncertain as to the lack of clarity referred to. If this objection is repeated, clarification would be appreciated. In any event, formal drawings will be submitted upon an indication that the application is in condition for allowance.

With respect to the specification, the title has been amended to make it more descriptive.

With respect to the rejection of the claims under 35 U.S.C. § 120, amendments to claims 1, 10, and 18 have been made in order to delete the use of the article "the" which was found objectionable by the Examiner. While the use of "the" in the context of the claims is believed appropriate, any indefiniteness under the second paragraph of § 112 would appear to have been cured by these claim amendments.

With respect to claim 6, the term "previous" has been deleted in order to avoid any possible confusion as noted by the Examiner. With respect to step (b) of claim 7, as the Examiner correctly observed, this portion of the claim as originally presented contained the phrase "polyalkylated aromatic components" out of place. By this amendment, the claim has been revised to avoid the indefiniteness of the original claim.

In view of the fact that claims 14-17 were not rejected over prior art, original claim 14 has been cancelled and rewritten in independent form as claim 21, thus claims 21 and 15-17

would appear to be clearly in condition for allowance subject to the double patenting rejection which will be discussed below.

Reconsideration and allowance of this application is respectfully requested in view of the foregoing amendment and the following remarks.

Turning first to the rejection of claims 1-6 under 35 U.S.C. § 102 as anticipated by Patent No. 5,324,877, it is noted that Applicants' independent claim 1 has been amended to more clearly distinguish the modified zeolite Y employed in the present invention from the ultra hydrophobic modified Y disclosed in the West et al reference and specifically the particular zeolite Y disclosed in West et al in the paragraph bridging columns 5-6 and the first full paragraph at the top of column 6. Specifically, claim 1 as now amended recites the zeolite Y catalyst employed in the transalkylation reaction zone as having a silica/alumina ratio within the range of 2-5, a pore size greater than 7 and up to about 8 Angstroms, and a surface area of no more than 500 m²/g. This zeolite Y is significantly different from the zeolite Y described in West. First, while West, near the top of column 6, specifies a surface area of at least 350 m²/g, this is clearly a bottom limit, and as a practical matter, West discloses the use of a modified zeolite Y having a much greater surface area between 500-700 m²/g. Further, the silica/alumina mole ratio of zeolite Y in West et al is disclosed to range from about 4.5 to 35 and preferably is dealuminated so that the silica/alumina ratio would be well above the 4.5 minimum. Finally, zeolite Y is only one of the crystalline molecular sieves employed in West. Other molecular sieves include zeolites beta, X, omega, mordenite as well as molecular sieves such as ZSM-5 and silicalite. While certain of the zeolite disclosed in West would have a pore size within the range of 7 to 8 Angstroms, other would appear to have pore sizes substantially below this level, and it is evident that West attributes no importance to the pore size of the zeolite employed in the transalkylation reaction zone. In

summary, therefor, it is respectfully submitted that the use of a high porosity zeolite Y having the requisite pore size, silica/alumina ratio and surface area as called for in Applicants' claims cannot be inferred from the West disclosure unless the West disclosure is reviewed in hindsight considering Applicants' specification as a road map to pick individual components from West and assemble them in an effort to arrive at Applicants' claim.

The rejection of claims 7-9 as unpatentable over West et al is respectfully traversed. It is submitted initially that these claims are patentable over West for the same reasons as advanced above with respect to claims 1-6. Further, it will be noted that while West discloses various molecular sieves, including silicalite, in addition to zeolite-Y, West, to the extent that it proposes using the so-called UHP zeolite-Y discloses that this zeolite should be used in both the alkylation and transalkylation reactors. West does not disclose using the designated zeolite-Y in the transalkylation reactor and employing another catalyst, be it silicalite, zeolite, ZSM-5, zeolite- β or the numerous other catalysts disclosed, in the alkylation reactor. To the extent that the Examiner relies upon an admission with respect to prior art (as found in Applicants' specification in the section Background of Invention), the discussion there is by no means with respect to the use of the high porosity zeolite-Y disclosed in Applicants' specification in combination with other zeolites such as ZSM-5, ZSM-11 or silicalite. In fact, West specifies that the same catalyst be employed in both the alkylation and transalkylation reactors. To use a UHP zeolite-Y of West in one reactor and a different catalyst in another reactor is simply contrary to the teachings of the reference. It is well established law that obviousness can not be established by modifying a prior art reference in a manner directly contrary to its express teachings and accordingly for this reason alone, the rejection should be reversed. As noted by the Board of Appeals in *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353 (POBAI 1984):

The mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims on appeal is not by itself sufficient to support a finding of obviousness. The prior art must provide a motivation or reason for the worker in the art, without the benefit of the appellant's specification, to make the necessary changes in the reference device.

Here, there clearly is no motivation to one of ordinary skill in the art to attempt to rearrange the West teachings to employ one catalyst in one reactor and another catalyst in another reactor when West proposes that the same catalyst, particularly the UHP zeolite-Y be employed in both reactors.

The rejection of claims 10-13 and 18-20 as unpatentable over West et al in view of "admitted prior art" further in view of EPA 467007 to Butler is respectfully traversed. These claims are submitted to be patentable over the proposed combination of West et al and Butler for the same reasons as advanced above with respect to West standing alone. Further, it is respectfully submitted that the proposed combination with Butler with West (which requires the same catalyst in both types of reactors) cannot be made in a manner to arrive at Applicants' invention, even if Applicants' teaching could be employed as a road map to be followed in combining the diverse teachings of the references. However, as the Examiner will appreciate, this is not the test. Assuming for the sake of argument that the prior art references could be combined in a manner to arrive at Applicants' invention, it is believed clear that this cannot be done in a manner consistent with the proper standard to be applied in combining prior art teachings. This standard forbids using Applicants' own disclosure as a basis for assembling prior art teachings and requires a suggestion or motivation in the prior art as reflected in decisions such as ACS Hospital Systems, Inc. v. Montefiore Hospital, 221 USPQ 929 (Fed. Cir.

1984) and Ex parte Giles, 228 USPQ 866 (PTO Bd. of App. and Int. 1985). As express by the Board in Giles at 688:

“Only appellant’s disclosure and not the prior art provides a motive for achieving the combination as claimed by appellant. To imbue one of ordinary skill in the art with knowledge of the invention . . . when no prior art reference or references of record convey or suggests that knowledge is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.”

Attention is also respectfully invited to the Federal Circuit decision in In re Fine, 5 USPQ2d 1596 (Fed. Cir. 1988), wherein the Court stated at 1600:

“It is essential that ‘the decisionmaker forget what he or she has been taught at trial about the claimed invention and cast the mind back to the time the invention was made . . . to occupy the mind of one skilled in the art who is presented only with the references, and who is normally guided by the then-accepted wisdom in the art.’ Id. One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.” (Emphasis added).

The admonitions in Ex parte Giles and In re Fine are to step back in time to evaluate the invention only in the context of what is disclosed in the references without regard to what is disclosed in Applicants’ specification. When this is done, it is believed clear that one of ordinary skill in the art would not arrive at Applicants’ invention based only upon the references and “the then-accepted wisdom in the art.”

The rejection of Applicants’ claims on the grounds of obviousness type double patenting in view of the claims found in U.S. Patent 5,955,642 is respectfully traversed. As this rejection is understood, the Examiner acknowledges that the claimed subject matter of the ‘642 patent does not require the specific zeolite-Y transalkylation catalyst as called for in the subject matter of Applicants’ claims. For reasons advanced above, it is respectfully submitted that the reliance

upon West in combination with the claimed subject matter of the '642 patent, would not lead to the use of a zeolite-Y catalyst having the parameters as recited in Applicants' independent claims, 1, 10, 18 and 21. However, this issue aside, it is again noted that the teachings of West are that the same zeolite-Y catalyst is to be employed in the alkylation and transalkylation reactors. Thus, the proposed modification of the claimed subject matter in the '642 patent becomes obvious only when the teachings of West are disregarded and Applicants' own teachings of the use of silicalite and in combination with zeolite-Y of the specified parameters are considered. It is respectfully submitted that the proposed combination of teachings arrived at by hindsight reconstruction is no more appropriate here than in a rejection under 35 U.S.C. §103. Nevertheless, should the Examiner remain of the view that the obviousness type double patenting rejection is warranted and this application is otherwise in condition for allowance, Applicant would at that point submit a terminal disclaimer against the term of the '642 patent.

Since claims 14-17 were not rejected over the prior art, claims 21 and 15-17 are similarly patentable over the prior art. As noted above, it is respectfully submitted that they also are not properly subject to a double patenting rejection. In addition, it is respectfully submitted that claims 1-13 and 18-20 are patentable over the prior art for the reasons advanced above. Accordingly, an early reconsideration and allowance of this application is respectfully requested.

A check in the amount of \$110.00 is enclosed to cover the fee for a one-month extension. This response was due on April 30, 2000, but with this one-month extension, the response is now due May 31, 2000. The Commissioner is hereby authorized to charge out Deposit Account No. 12-1781 for any additional fees that may be connected with this communication.

Respectfully submitted,

LOCKE LIDDELL & SAPP LLP



William D. Jackson
Registration No. 20,846

Date: May 31, 2000

2200 Ross Avenue, Suite 2200
Dallas, Texas 75201-6776
Telephone: 214/740-8000
Direct Dial: 214/740-8535
Facsimile: 214/740-8800